## AMENDMENTS TO THE CLAIMS

Please replace all prior versions, and listings, of the claims in the application with the following amended listing of claims:

1. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus, or family, including collecting data comprising the meiotic or embryo sac development stage, pistil length and width, inner and outer integument lengths, and meiocyte or embryo sac length and width;

(b) identifying and selecting a first and second sexual plant from an angiospermous plant species, genus, or family based on differences in the timing of female developmental schedules quantified in step (a), wherein the initiation time of embryo sac formation in the first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues, wherein the nongametophytic ovule and ovary tissues comprise at least one member of the group consisting of nucellus, integument, pericarp, hypanthium, and pistil wall, such that a hybrid of the first and second sexual plant would result in asynchronous female development;

(c)~~(b)~~ hybridizing the first plant and second plant;

(d)~~(c)~~ recovering seed therefrom;

(e)~~(d)~~ sowing the seed, and

(f)~~(e)~~ selecting a hybrid plant that is apomictic.

2. (Original) The method of claim 1, further comprising the step of doubling the chromosome number of the first and/or second plant prior to hybridization or doubling the chromosome number of one or more of the hybrid plants.

3. (Original) The method of claim 2, wherein the step of doubling the chromosome number is accomplished by $B_{III}$ hybridization or by treating the plant with a spindle inhibitor.

4. (Currently Amended) The method of claim 1, wherein the apomictic plant selected is euploid or aneuploid and the step of quantifying divergence in female developmental schedules includes cytologically analyzing the female meiotic prophase, dyad, tetrad, and degenerating megaspore stages, or nucleate embryo sac stages.

5. (Cancelled)

6. (Original) The method of claim 1, wherein the step of hybridizing the first plant and second plant is accomplished by somatic cell hybridization.

7. (Original) The method of claim 1, wherein the first plant expresses a flowering response to various photoperiods that is different from that of the second plant.

8. (Original) The method of claim 7, wherein the differences in flowering responses are measured in days to flowering.

9. (Original) The method of claim 7, wherein the first plant and second plant are of a different flowering response type selected from the group consisting of short-day plants, long-day plants, dual-day-length plants, intermediate-day-length plants, ambiphotoperiodic plants, and day-neutral plants.

10. (Currently Amended) The method of claim 1, wherein the first plant and/or the second plant are obtained by plant breeding and the step of quantifying divergence in female developmental schedules includes comparing pistil and integument lengths and widths against the lengths and widths of the pistil and integument lengths at the mature lengths and widths at stigma exsertion.

11. (Original) The method of claim 1, wherein the apomictic plant selected is polyembryonic.

12. (Original) The method of claim 1, wherein the first plant and second plant are selected from a family that exhibits apomixis in nature.

13-14. (Cancelled)

15. (Previously Presented) The method of claim 1, further comprising the step of:

screening plants within an angiospermous plant species, genus, or family for differences in the timing of initiation of megasporogenesis and embryo sac formation relative to the developmental maturity of nongametophytic ovule and ovary tissues among the plants.

16. (Cancelled)

17. (Original) The method of claim 15, further comprising the step of doubling the chromosome number of the first and/or the second plants prior to hybridization or doubling the chromosome number of the hybrid plants.

18. (Original) The method of claim 17, wherein the step of doubling the chromosome number is accomplished by $B_{III}$ hybridization or by treating the plant with a spindle inhibitor.

19. (Original) The method of claim 15, wherein the apomictic hybridized plant selected is euploid or aneuploid.

20. (Original) The method of claim 15, wherein the step of hybridizing the first plant and second plant is accomplished by somatic cell hybridization.

21. (Original) The method of claim 15, wherein the first plant expresses a flowering response to various photoperiods that is different from that of the second plant.

22. (Original) The method of claims 21, wherein the first plant and second plant are of a different flowering response type selected from the group consisting of short-day plants, long-day plants, dual-day-length plants, intermediate-day-length plants, ambiphotoperiodic plants, and day-neutral plants.

23. (Original) The method of claim 21, wherein the differences in flowering responses are measured in days to flowering.

24. (Original) The method of claim 15, wherein the first plant and/or the second plant are obtained by plant breeding.

25-26. (Cancelled)

27. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus, or family and collecting data including at least two of the following: meiotic or embryo sac development stage, pistil length and width, inner and outer integument lengths, and meiocyte or embryo sac length and width;

(b) identifying and selecting a first and second sexual plant from an angiospermous plant species, genus, or family based on differences in the timing of female development schedules quantified in step (a), wherein the initiation time of embryo sac formation in the first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c)~~(b)~~ hybridizing the first plant and second plant;

(d)~~(c)~~ recovering seed therefrom;

(e)~~(d)~~ sowing the seed; and

(f)~~(e)~~ selecting a hybrid plant that is apomictic~~,~~

~~wherein the step of hybridizing the first plant and second plant is accomplished by somatic cell hybridization~~.

28. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) quantifying divergence in female developmental schedules from an angiospermous plant species, genus, or family as related to various photoperiods;

(b) identifying and selecting a first and second sexual plant from an angiospermous plant species, genus, or family that have asynchronous female developmental schedules as quantified in step (a), wherein the initiation time of embryo sac formation in the

first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c)~~(b)~~ hybridizing the first plant and second plant;

(d)~~(c)~~ recovering seed therefrom;

(e)~~(d)~~ sowing the seed; and

(f)~~(e)~~ selecting a hybrid plant that is apomictic,

wherein the first plant expresses a flowering response to various photoperiods that is different from that of the second plant resulting asynchronous expression of duplicate genes.

29. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus, or family;

(b) identifying and selecting a first and second sexual plant from an angiospermous plant species, genus, or family based on differences in the timing of female development schedules quantified in step (a), wherein the initiation time of embryo sac formation in the first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c)~~(b)~~ hybridizing the first plant and second plant;

(d)~~(c)~~ recovering seed therefrom;

(e)~~(d)~~ sowing the seed; and

(f)~~(e)~~ selecting a hybrid plant that is apomictic~~,~~

~~wherein the first plant and/or the second plant are obtained by plant breeding~~.

30. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) producing data by screening plants within an angiospermous plant species, genus, or family for differences in the timing of initiation of megasporogenesis and embryo sac formation relative to the developmental maturity of nongametophytic ovule and ovary tissues among the plants including comparing pistil and integument lengths and widths against the

lengths and widths of the pistil and integument lengths at the mature lengths and widths at stigma exsertion.

(b) using the data to identify~~ing~~ and select~~ing~~ a first and second sexual plant from an angiospermous plant species, genus, or family, wherein the initiation time of embryo sac formation in the first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c) hybridizing the first plant and second plant;

(d) recovering seed therefrom;

(e) sowing the seed; and

(f) selecting a hybrid plant that is apomictic~~,~~

~~wherein the apomictic hybridized plant selected is euploid or aneuploid~~.

31. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) screening plants within an angiospermous plant species, genus, or family for differences in the timing of initiation of megasporogenesis and embryo sac formation relative to the developmental maturity of nongametophytic ovule and ovary tissues among the plants including determining at least two of the following: meiotic or embryo sac development stage, pistil length and width, inner and outer integument lengths, and meiocyte or embryo sac length and width;

(b) identifying and selecting a first and second sexual plant from the plants screened having ~~an angiospermous plant species, genus, or family, wherein the~~ initiation time of embryo sac formation in the first plant that occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c) hybridizing the first plant and second plant;

(d) recovering seed therefrom;

(e) sowing the seed; and

(f) selecting a hybrid plant that is apomictic~~,~~

~~wherein the first plant expresses a flowering response to various photoperiods that is different from that of the second plant~~.

32. (Currently Amended) A method of producing an apomictic plant from sexual plants, the method comprising the steps of:

(a) quantifying divergence in female developmental schedules of plants from an angiospermous plant species, genus, or family including cytologically analyzing the female meiotic prophase, dyad, tetrad, and degenerating megaspore stages, or nucleate embryo sac stages and collecting data including at least one of the following: meiotic or embryo sac development stage, pistil length and width, inner and outer integument lengths, and meiocyte or embryo sac length and width ~~screening plants within an angiospermous plant species, genus, or family for differences in the timing of initiation of megasporogenesis and embryo sac formation relative to the developmental maturity of nongametophytic ovule and ovary tissues among the plants~~;

(b) identifying and selecting a first and second sexual plant from an angiospermous plant species, genus, or family based on differences in the timing of female development schedules quantified in step (a), wherein the initiation time of embryo sac formation in the first plant occurs at about the same time as or before megasporogenesis in the second plant relative to the developmental maturity of the nongametophytic ovule and ovary tissues;

(c) hybridizing the first plant and second plant;

(d) recovering seed therefrom;

(e) sowing the seed; and

(f) selecting a hybrid plant that is apomictic,

wherein the first plant and/or the second plant are obtained by plant breeding.